



# Swabhimaan Programme, Bihar

## Baseline Survey (2016) Results: Purnea District





# Background

## 1. JEEViKA Programme in Bihar

In 2007, the Government of Bihar launched the JEEViKA programme, which creates institutions of women driven by women themselves for reducing widespread rural poverty in the state by – (i) organizing rural poor women into Self Help Groups (SHGs); (ii) building their capacity to establish their savings base and linking them with viable pro-poor livelihood value chains, so that poor families can take charge and come out of poverty and (iii) increasing access to social protection and entitlements (including food, water and nutrition security). This is achieved through demand generation and promoting food, Water, Sanitation and Hygiene (WASH) and nutrition-based livelihoods. The programme is anchored by the Bihar Rural Livelihood Promotion Society (BRLPS), an independent society of the Government of Bihar, under the stewardship of the National Rural Livelihood Mission (NRLM), Ministry of Rural Development and Panchayati Raj, with funding from the World Bank.

Operationally, JEEViKA creates multi-tier structure of women involving SHGs at tier-1, Village Organisations (VOs) comprising 10 to 20 SHGs at tier-2 and Cluster/Gram Panchayat Level Federations (CLFs) at tier-3. In some districts, high tier federations at block and district levels are also being formed. The JEEViKA Programme Management Units (PMUs) at state, district and block levels provide supervisory and capacity building support to SHGs and their higher tiers.

After the initial period of mobilization and collectivization for thrift and credit, bank linkage and income generation, the JEEViKA programme focuses on capacity building of VOs that abide by the “Panchsutra” guides for at least six months and engage as farmer collectives. In addition to this, another pre-requisite for capacity building is that the VOs must layer social issues within their programmes, through utilization of the monthly meeting platform of SHGs, for behaviour promotion and food, WASH and nutrition-security based livelihoods. At present, there are 6,07,702 SHGs (tier-1), 25,014 VOs (tier-2), and 318 CLFs (tier-3) in Bihar. VOs have been engaged in running meal provision centres for pregnant and lactating women (101 blocks; 11 districts), construction of toilets (64 Gram Panchayats in 10 districts) and manufacturing of sanitary napkins. They also utilize their SHG platform to disseminate messages and generate demand for behaviours/entitlements (46 blocks; 14 districts) and food fortification units (4 blocks, 2 districts).

Each VO is registered as a society and has office bearers, Community Resource Person (CRP) and a book keeper. A health risk and vulnerability reduction/food security risk fund is available to the members (particularly those belonging to the poorest households) to seek loans for health and other family emergencies. Community Investment Fund (CIF) is also available to initiate various income generation activities.

## 2. JEEViKA in Purnea District, Bihar

The JEEViKA was initiated in 2007 in three blocks in Purnea district and gradually scaled up to all 14 blocks by 2012. Programme data (2016) shows that there are a total of 26,887 SHGs (tier-1), 1,885 VOs (tier-2), and 43 CLFs (tier-3) in Purnea district. Of the 1,885 VOs 1,382 are engaged in various food security, nutrition and WASH linked behaviour promotion and livelihood initiatives. In 2016, the JEEViKA programme covered 2,18,836 households. For programme purpose, JEEViKA has divided each block into three clusters (1, 2 and 3). Each cluster is supervised by a supervisor who reports to a block manager at block level. A district PMU supported by a thematic health and nutrition manager anchors various health and nutrition initiatives in the district.

## 3. Swabhimaan Programme (2016-2020), Purnea District

In 2016, JEEViKA partnered with the United Nations Children’s Fund (UNICEF) Bihar to initiate the Swabhimaan Project (2016-2020) with an aim to improve the nutritional status of girls,

### The Swabhimaan Programme adopts

#### Strategy 1

Block-wide and entails formal systems strengthening to improve coverage of food security entitlements, health, nutrition, water and sanitation services.



The activities under this strategy include:

1

Strengthening Village Health, Sanitation and Nutrition Days (VHSNDs) to improve access to antenatal care, family planning and micronutrient supplementation through this platform. Strengthening will involve quarterly trainings of health service providers, monthly review of nutrition indicators and identification of women at risk of under nutrition for special supplementary food/counselling

2

Strengthening adolescent health day to improve access to adolescent health and nutrition services via quarterly trainings of health and Integrated Child Development Services (ICDS) service providers

3

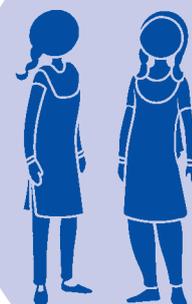
An extended VHSND once every six months for newly-wed women, including individual counselling and providing information about entitlement camps

4

Annual training and follow-up meetings with service providers from allied departments (Public Health Engineering Department (PHED), Civil Supplies) to help them improve the delivery of entitlements and services

5

Regularizing block nutrition convergence review mechanism



pregnant women and mothers of children under two years in Kasba and Jalalgarh blocks of Purnea district in Bihar, by increasing the coverage of five essential nutrition (specific and sensitive) interventions.

JEEViKA is anchoring and implementing the Swabhimaan programme, in coordination with the Departments of Health, Civil Supplies, Social Welfare and Public Health Engineering, with technical and financial support from the UNICEF. UNICEF in turn is partnering with relevant non-government partners (and resource persons) for development of capacity building tools and methodologies and with relevant academia for impact and process evaluation. The impact evaluation is led by the All India Institute of Medical Sciences (AIIMS) in Bihar, Chhattisgarh and Odisha, with technical support from the International Institute for Population Sciences (IIPS) and University College London (UCL). The impact evaluation has been registered with the Registry for International Development Impact Evaluations (RIDIE-STUDY-ID-58261b2f46876) Indian Council of Medical Research (ICMR) National Clinical Trials Registry of India (CTRI/2016/11/007482).

## two implementation strategies



### Strategy 2

Partner with Village Organizations to design, implement and monitor a multi-sector programme for adolescent girls and women.

The activities under this strategy include:

- 1 Training cadres of VOs Poshan Sakhis, to facilitate women-specific issues (Maitri Baithak) through monthly meetings with women's SHGs using participatory learning and action cycle methodology
- 2 Training cadres of VOs (Adolescent Sakhis) to form and facilitate fortnightly adolescent girls' clubs (Kishori Samooh) for discussions, using participatory learning and action cycle, and link girls of the VOs to receive grants for secondary education
- 3 Quarterly trainings of community farming cadre of VOs (Krishi Resource Persons) who in turn engage monthly with women farmer/producer groups of JEEViKA on nutrition-sensitive agriculture methodologies for creation of community nutrition-sensitive agriculture demonstration sites (farmer field school at cluster level) and promotion of backward micronutrient-rich kitchen gardens at homes
- 4 Training community cadres of VOs (Poshan Sakhis) to identify at nutritional risk adult women (Mid-Upper Arm Circumference [MUAC] <23 cms for women and first/adolescent pregnancy), track and follow-up through fortnightly group/home visits and linkage with (a) VOs for provision of seed grants for agriculture and poultry-rearing activities and (b) one free hot-cooked noon meal
- 5 VOs conducting special meetings and rallies for newly-wed couples
- 6 VOs conducting a bi-annual process audit of their progress against plan



Jalalgarh and Kasba blocks are divided into three clusters of a total of 27, 41 and 36 villages respectively for the purpose of programme impact evaluation. In the first year (2017) of programme implementation, a total of 41 villages of Cluster 2 will serve as the intervention area, while a total of 36 villages of Cluster 3 will be the designated control area. In each subsequent year, the remaining clusters of Jalalgarh and Kasba blocks will be added to the programme.

Additionally in cluster 1 (from 2017 onwards), women's VOs (and SHGs) are being engaged in designing and implementing integrated village health, nutrition and WASH plans through community cash grants received by JEEViKA via the Vulnerability Reduction Fund/other such options.

We hypothesise that the Swabhimaan programme will lead to a 15% reduction in the proportion of adolescent girls with a Body Mass Index (BMI)<18.5, a 15% reduction in the proportion of mothers of children under two with a BMI<18.5 and a 0.4 cm improvement in mean MUAC among pregnant women, over the intervention period of three years. Additionally, improvements of 5% to 20% are expected in the coverage of 18 key nutrition specific and sensitive indicators in intervention areas over the span of three years.

The process evaluation and independent concurrent monitoring of quality of implementation strategy is led by the Clinical Development Services Agency, a unit of Department of Biotechnology, Government of India. The programme is reviewed at the national level bi-annually and is guided by a national technical expert group.

#### **4. Swabhimaan Programme Baseline Survey (2016), Purnea District**

Data collection for the baseline survey in Jalalgarh and Kasba blocks was conducted in the intervention (cluster 2) and comparison (cluster 3) areas between July and December 2016. First, a house-to-house census was conducted to enlist each and every house and its members in the two blocks between May and September 2016. This census survey helped 59,963 households for a total of 2,66,930 people surveyed, with 13,370 children less than two years and their 13,472 mothers, 26,158 adolescent girls 10-19 years, 6,796 pregnant women and 60,903 women 15-49 years. These groups were envisaged as the target groups for the system strengthening component of the intervention (as it covered the entire block).

Based on the outcome indicators and the change envisaged a representative sample from all three target groups were selected using simple random sampling for the baseline survey in Jalalgarh and Kasba blocks. Finally, 1,750 adolescent girls, 748 pregnant women and 2,848 mothers of children under two years were interviewed. The baseline survey protocol, methodology and tools were approved by the Institutional Ethics Committee of the AIIMS. Computer-Assisted Personal Interviewing (CAPI) based bilingual interview schedules were used for data collection by 37 investigators who were supervised by seven supervisors. Quality control checks were conducted for 10% of the interviewed population. Verbal consent was taken from all participants before conducting the interviews. For respondents below the age of 18 years, written and verbal consent was taken from the respondents and their parents respectively.

A separate schedule was prepared for each target group. Information obtained included socio-demographic and household characteristics, educational attainment, diet diversity, availability of a homestead kitchen garden, access to health, ICDS and JEEViKA services and decision making practices using pre-tested interview schedules. Nutritional status was assessed using anthropometry (weight, height and MUAC).



SWABHIMAAN PROGRAMME BASELINE (2016) -  
PURNEA DISTRICT, BIHAR

# ADOLESCENT GIRLS

(10-19 years)

## ADOLESCENT GIRLS (10-19 years)

Key Indicators		Intervention Area*	Comparison Area*	Total
<b>SOCIO-DEMOGRAPHIC INDICATORS</b>				
1.	Estimated sample of adolescent girls (n)	875	875	1750
2.	Adolescent girls interviewed (n)	863	841	1704
<b>Distribution of adolescent girls by age groups (years)</b>				
3.1	10-14 (%)	63.6	62.8	63.2
3.2	15-19 (%)	36.4	37.2	36.8
<b>Educational status of adolescent girls</b>				
4.	Never attended school (%)	8.9	10.6	9.7
5.	Currently attending school (%)	80.9	80.4	80.7
6.	Currently not attending school (%)	10.2	9.0	9.6
7.	Discontinued schooling in <sup>1</sup> (n)	88	76	164
7.1	Standard 1-5 (%)	64.8	51.3	58.5
7.2	Standard 6-8 (%)	23.9	39.5	31.1
7.3	Standard 9-12 (%)	11.4	9.2	10.4
8.	<b>Adolescent girls who were engaged in paid work outside their home (%)</b>	13.6	9.8	11.7
<b>Religion of the head of household</b>				
9.1	Hindu (%)	47.4	36.3	41.8
9.2	Muslim (%)	52.6	63.4	58.0
9.3	Others <sup>2</sup> (%)	0.0	0.4	0.2
<b>Caste/Tribe of the head of household</b>				
10.1	Scheduled Caste (SC) <sup>3</sup> (%)	18.0	7.5	12.8
10.2	Scheduled Tribe (ST) (%)	8.5	1.2	4.9
10.3	Mahadalit (%)	8.9	3.6	6.3
10.4	Other Backward Classes (OBCs) (%)	55.9	81.1	68.3
10.5	General (%)	8.8	6.7	7.7

### Notes

\* Intervention Area – JEEVIKA Cluster 2; Comparison Area – JEEVIKA Cluster 3

1. Of those adolescent girls currently not in school.

2. Others include Christians, Buddhists, Sikhs and Jains.

3. The given percentage of Scheduled Caste (SC) does not include Mahadalit. The most socially and economically disadvantaged castes from the SC category have been designated as Mahadalits by the Bihar state government.

	<b>Key Indicators</b>	<b>Intervention Area</b>	<b>Comparison Area</b>	<b>Total</b>
<b>Public Distribution System (PDS) and Integrated Child Development Services (ICDS)</b>				
12.	Adolescent girls who visit Anganwadi Centre (AWC) for any service <sup>4</sup> (%)	3.2	3.6	3.4
13.	Adolescent girls who receive dry ration from AWC <sup>5</sup> (%)	22.2	30.8	27.3
14.	Adolescent girls who have accessed any health service or counselling from a frontline health worker in the six months preceding the survey <sup>6</sup> (%)	3.1	2.3	2.7
15.	<b>Adolescent girls living in households with a kitchen garden<sup>7</sup> (%)</b>	28.2	18.2	23.2
<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>				
16.	Adolescent girls who ever received any Iron and Folic Acid (IFA) tablet (blue coloured) (%)	6.5	3.8	5.2
17.	Adolescent girls who have consumed at least four IFA tablets in the month preceding the survey (%)	3.2	2.1	2.7
18.	Adolescent girls who have taken any tablet for deworming in the six months preceding the survey (%)	41.5	35.2	38.4
19.	Adolescent girls living in households using adequately iodised salt <sup>8</sup> (%)	78.8	68.0	73.5
<b>DIETARY DIVERSITY<sup>9</sup> (n)</b>		<b>782</b>	<b>825</b>	<b>1607</b>
20.	Adolescent girls' mean Dietary Diversity Score (DDS) <sup>10</sup> [Standard Deviation (SD)]	3.9 [1.4]	4.0 [1.4]	4.0 [1.4]
21.	In the 24 hours preceding the survey, food groups consumed by adolescent girls			
21.1	Grains, white roots and tubers, and plantains (%)	99.6	95.8	97.6
21.2	Pulses (beans, peas and lentils) (%)	69.6	58.9	64.1
21.3	Nuts or seeds (%)	4.7	2.9	3.8
21.4	Dairy (%)	33.0	28.5	30.7
21.5	Meat, poultry and fish (%)	28.6	42.4	35.7
21.6	Egg (%)	7.8	11.9	9.9
21.7	Dark green leafy vegetables (%)	29.8	43.8	37.0
21.8	Other vitamin A-rich fruits and vegetables (%)	35.3	23.3	29.1
21.9	Other vegetables (%)	75.3	79.5	77.5
21.10	Other fruits (%)	11.0	13.3	12.2

#### Notes

4. Under the Kishori Shakti Yojana (KSY), nutritional and health services are extended to adolescent girls, with local Anganwadi Centres serving as the focal point for delivery of the mandated services.
5. Dry ration is provided from the AWC to those adolescent girls who visited AWC for services and who weigh less than 35 kg (n: Intervention Area - 9; Comparison Area - 13; Total - 22).
6. Frontline health workers include Auxiliary Nurse Midwives (ANMs), Accredited Social Health Activist (ASHA) and Anganwadi Workers (AWWs).
7. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant lots, roadsides, edges of a field or even containers.
8. 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm.
9. Excludes those adolescent girls who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.
10. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was created (0 being the lowest value, 10 being the highest).

<b>Key Indicators</b>		<b>Intervention Area</b>	<b>Comparison Area</b>	<b>Total</b>
22.	Adolescent girls consuming food from specific food groups			
22.1	Animal-source food (meat, poultry, fish and egg) (%)	33.6	48.0	41.0
22.2	Pulses (beans, peas and lentils) and nuts or seeds (%)	70.3	59.9	65.0
22.3	Dark green leafy vegetables and other vitamin A-rich fruits and vegetables (%)	36.3	50.3	43.5
23.	Adolescent girls by number of food groups consumed			
23.1	Only one food group (%)	1.0	2.5	1.8
23.2	Only two food groups (%)	13.7	12.1	12.9
23.3	Only three food groups (%)	26.0	22.9	24.4
23.4	Only four food groups (%)	27.5	27.4	27.4
23.5	Less than five food groups (%)	68.2	65.1	66.6
24.	Adolescent girls with minimum dietary diversity score (5 or more out of 10) (%)	31.8	34.9	33.4
<b>ACCESS TO HEALTH SERVICES AND WATER, SANITATION AND HYGIENE (WASH)</b>				
<b>Kishori Divas</b>				
25.	Adolescent girls who think that there are times in a woman's cycle when she is more likely to get pregnant than other times (%)	2.3	1.1	1.7
26.	Adolescent girls who have accessed adolescent health services (Kishori Divas) in the six months preceding the survey <sup>11</sup> (%)	3.1	1.9	2.5
27.	Adolescent girls who have attended any Kishori group meeting in the six months preceding the survey (%)	2.4	1.7	2.1
28.	Adolescent girls who have attended at least two Kishori group meetings in the six months preceding the survey (%)	1.1	1.1	1.1
29.	Number of Kishori group meetings attended in the six months preceding the survey			
29.1	Never attended (%)	97.6	98.3	97.9
29.2	Attended once (%)	1.3	0.6	0.9
29.3	Attended twice (%)	0.9	0.6	0.8
29.4	Attended thrice (%)	0.0	0.4	0.2
29.5	Attended more than three (%)	0.2	0.1	0.2
30.	Topics discussed in Kishori group meetings <sup>12</sup>			
30.1	Life Skill (%)	14.3	57.1	31.4
30.2	Protection (%)	19.0	35.7	25.7
30.3	Nutrition (%)	57.1	64.3	60.0
30.4	Health (%)	76.2	78.6	77.1
30.5	Other (%)	4.8	0.0	2.9
31.	Knowledge of social protection scheme for adolescents			
31.1	Rashtriya Kishor Swasthya Karyakram (RKSK) (%)	1.6	1.1	1.3
31.2	Rajeev Gandhi Scheme for Employment of Adolescent Girls (Sabla) (%)	0.6	0.5	0.5
32.	Adolescent girls who			
32.1	Ever received any vocational training (%)	8.5	8.6	8.5
32.2	Ever attended any school/community occasions (%)	21.1	18.4	19.8

	Key Indicators	Intervention Area	Comparison Area	Total
32.3	Participated in activities to prevent child marriage or exploitation or violence during the three months preceding the survey (%)	4.5	3.2	3.9
32.4	Reported that they can socialize outside their home (%)	28.2	24.6	26.4

**Notes**

11. Kishori Divas or Adolescent Girls' Day is held once in every three months at AWCs. Health services, including a free health check-up, is extended to all adolescent girls on this occasion.
12. Only those adolescent girls who had attended any Kishori group meeting in the six months preceding the survey were considered (n: Intervention Area - 21; Comparison Area - 14; Total - 35).

<b>Key Indicators</b>		<b>Intervention Area</b>	<b>Comparison Area</b>	<b>Total</b>
<b>Water, Sanitation and Hygiene</b>				
33.	Adolescent girls living in households having access to drinking water from			
33.1	Public tap/Stand pipe (%)	9.0	11.4	10.2
33.2	Tube well or Borehole (%)	90.8	88.2	89.6
33.3	Others <sup>13</sup> (%)	0.2	0.4	0.2
34.	Adolescent girls living in households with a			
34.1	Septic tank (%)	9.0	6.5	7.8
34.2	Pit latrine (%)	3.2	2.3	2.8
34.3	Biogas latrine (%)	8.2	0.0	4.2
34.4	Others (%)	5.1	6.9	5.9
35.	Adolescent girls living in households in which members practice open defecation (%)	74.5	84.3	79.3
36.	Adolescent girls living in households in which members use soap for hand-washing after defecation (%)	69.9	75.7	72.8
<b>Personal hygiene<sup>14</sup> (n)</b>		<b>501</b>	<b>478</b>	<b>979</b>
37.	Adolescent girls who use safe pads or sanitary pads during periods (%)			
38.	Adolescent girls who use any cloth for protection during their periods (%)	73.3	79.3	76.2
<b>ABILITY TO MAKE CHOICES AND DECISIONS</b>				
39.	Adolescent girls taking decisions about their own health care (%)	26.2	25.1	25.6
40.	Adolescent girls taking decisions about making major purchases for the household (%)	20.4	21.5	21.0
41.	Adolescent girls taking decisions about making purchases for daily household needs (%)	37.9	41.5	39.7
42.	Adolescent girls taking decisions about visits to family members or relatives (%)	18.5	20.9	19.7
43.	Adolescent girls taking decisions about going to school or studying <sup>15</sup> (%)	70.7	66.1	68.5
44.	Adolescent girls taking decisions about keeping/spending the money they currently have (%)	55.5	59.6	57.5
45.	Adolescent girls who think that they can take decision regarding whom to marry (%)	7.2	6.5	6.9

**Notes**

13. Also includes those households which have no source of drinking water.

14. Includes only those adolescent girls who had started menstruating.

15. Only those adolescent girls who ever attended school are included (n: Intervention Area - 786; Comparison Area - 752; Total - 1538).

Key Indicators		Intervention Area	Comparison Area	Total
<b>NUTRITIONAL STATUS<sup>16</sup></b>				
<b>Early adolescence (10-14 years) (n)</b>		549	526	107)
46.	Adolescent girls' mean weight (kg [SD])	31.4 [7.9]	31.4 [7.7]	31.4 [7.8]
47.	Adolescent girls' mean height (cm [SD])	139.9 [10.8]	139.5 [10.5]	139.7 [10.7]
48.1	Adolescent girls' height for age < -2SD <sup>17</sup> (%)	45.3	43.2	44.3
48.2	Adolescent girls' height for age < -3SD <sup>18</sup> (%)	18.2	17.2	17.7
49.	Adolescent girls' mean Mid-Upper Arm Circumference (MUAC) <sup>19</sup> (cm [SD])	19.3 [2.6]	19.1 [2.6]	19.2 [2.6]
49.1	Adolescent girls with MUAC < 17 cm (%)	20.9	20.5	20.7
49.2	Adolescent girls with MUAC between 17-18.9 cm (%)	27.3	26.4	26.9
49.3	Adolescent girls with MUAC between 19-20.9 cm (%)	23.5	28.9	26.1
49.4	Adolescent girls with MUAC between 21-22.9 cm (%)	19.5	14.8	17.2
49.5	Adolescent girls with MUAC 23 cm and above (%)	8.7	9.3	9.0
50.	Adolescent girls' mean Body Mass Index (BMI) <sup>20</sup> [SD]	15.8 [2.5]	15.9 [2.6]	15.8 [2.5]
50.1	Adolescent girls with BMI for age < -2SD <sup>21</sup> (%)	29.5	25.4	27.6
50.2	Adolescent girls with BMI for age < -3SD <sup>22,23</sup> (%)	8.1	7.4	7.8
51.	Adolescent girls experiencing both stunting and wasting <sup>24</sup> (%)	19.1	15.1	17.2
52.	Adolescent girls experiencing severe stunting and wasting <sup>25</sup> (%)	3.6	2.2	2.9
<b>Late adolescence (15-19 years) (n)</b>		314	311	625
53.	Adolescent girls' mean weight (kg [SD])	40.3 [7.0]	41.0 [7.1]	40.6 [7.0]
54.	Adolescent girls' mean height (cm [SD])	148.8 [7.6]	149.4 [7.3]	149.1 [7.5]
54.1	Adolescent girls' height for age < -2SD <sup>17</sup> (%)	40.3	40.6	40.4
54.2	Adolescent girls' height for age < -3SD <sup>18</sup> (%)	15.5	14.7	15.1
55.	Adolescent girls' mean Mid-Upper Arm Circumference (MUAC) <sup>19</sup> (cm [SD])	22.3 [2.5]	22.0 [2.3]	22.1 [2.4]
55.1	Adolescent girls with MUAC < 17 cm (%)	2.5	1.6	2.1
55.2	Adolescent girls with MUAC between 17-18.9 cm (%)	5.7	4.2	5.0
55.3	Adolescent girls with MUAC between 19-20.9 cm (%)	19.7	25.7	22.7
55.4	Adolescent girls with MUAC between 21-22.9 cm (%)	32.5	33.1	32.8
55.5	Adolescent girls with MUAC 23 cm and above (%)	39.5	35.4	37.4
56.	Adolescent girls' mean Body Mass Index (BMI) <sup>20</sup> [SD]	18.1 [2.5]	18.3 [2.7]	18.2 [2.6]
56.1	Adolescent girls with BMI for age < -2SD <sup>21</sup> (%)	28.4	24.0	26.3
56.2	Adolescent girls with BMI for age < -3SD <sup>22,23</sup> (%)	8.1	4.9	6.6
57.	Adolescent girls experiencing both stunting and wasting <sup>24</sup> (%)	17.7	11.7	14.9
58.	Adolescent girls experiencing severe stunting and wasting <sup>25</sup> (%)	4.2	1.0	2.7

Key Indicators		Intervention Area	Comparison Area	Total
<b>Total adolescents (10-19 years) (n)</b>		863	837	170)
59.	Adolescent girls' mean weight (kg [SD])	34.6 [8.7]	34.9 [8.8]	34.8 [8.8]
60.	Adolescent girls' mean height (cm [SD])	143.2 [10.7]	143.2 [10.6]	143.2 [10.6]
60.1	Adolescent girls' height for age < -2SD <sup>17</sup> (%)	43.5	42.2	42.9
60.2	Adolescent girls' height for age < -3SD <sup>18</sup> (%)	17.2	16.3	16.8
61.	Adolescent girls' mean Mid-Upper Arm Circumference (MUAC) <sup>19</sup> (cm [SD])	20.4 [3.0]	20.2 [2.8]	20.3 [2.9]
61.1	Adolescent girls with MUAC < 17 cm (%)	14.3	13.5	13.9
61.2	Adolescent girls with MUAC between 17-18.9 cm (%)	19.5	18.2	18.8
61.3	Adolescent girls with MUAC between 19-20.9 cm (%)	22.1	27.7	24.9
61.4	Adolescent girls with MUAC between 21-22.9 cm (%)	24.2	21.6	22.9
61.5	Adolescent girls with MUAC 23 cm and above (%)	19.9	19.0	19.5
62.	Adolescent girls' mean Body Mass Index (BMI) <sup>20</sup> [SD]	16.6 [2.7]	16.8 [2.8]	16.7 [2.8]
62.1	Adolescent girls with BMI for age < -2SD <sup>21</sup> (%)	29.1	25.0	27.1
62.2	Adolescent girls with BMI for age < -3SD <sup>22,23</sup> (%)	8.1	6.5	7.3
63.	Adolescent girls experiencing both stunting and wasting <sup>24</sup> (%)	18.6	13.8	16.3
64.	Adolescent girls experiencing severe stunting and wasting <sup>25</sup> (%)	3.8	1.8	2.8

#### Notes

16. Includes only those adolescent girls who had given their consent for taking their anthropometric measurements.
17. Adolescent girls whose z-score of height-for-age is below -2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered too short for their age (stunted). It excludes a total of 72 flagged cases.
18. Adolescent girls whose z-score of height-for-age is below -3 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as severely stunted. It excludes a total of 72 flagged cases.
19. The measurement of MUAC is commonly used as a potential indicator of nutritional status.
20. The World Health Organisation (2004) defines Body Mass Index (BMI) as a simple index of weight for height and is used to categorise adults as either underweight, normal, overweight or obese. It is calculated as weight (kilograms) divided by the square of height (metres).
21. Adolescent girls whose z-score of BMI for age is below -2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as underweight. It excludes a total of 77 flagged cases.
22. Adolescent girls whose z-score of BMI for age is below -3 SD units from the median of the 2007 WHO Growth Reference 5-19 years, are considered as severely underweight. It excludes a total of 77 flagged cases.
23. Percentage of adolescent girls whose z-score of BMI for age is greater than 2 SD units from the median of the 2007 WHO Growth Reference 5-19 years, was very low. Therefore, it is not included in the fact sheet.
24. Includes those adolescent girls whose z-score of height for age is below -2 SD units, and z-score of BMI for age is below -2 SD units.
25. Includes those adolescent girls whose z-score of height for age is below -3 SD units, and z-score of BMI for age is below -3 SD units.



SWABHIMAAN PROGRAMME BASELINE (2016) -  
PURNEA DISTRICT, BIHAR

# PREGNANT WOMEN (15-49 years)

## PREGNANT WOMEN (15-49 years)

Key Indicators		Intervention Area*	Comparison Area*	Total
<b>SOCIO-DEMOGRAPHIC INDICATORS</b>				
1.	Estimated sample of pregnant women (n)	374	374	748
2.	Pregnant women interviewed (n)	468	468	936
<b>Distribution of pregnant women by age groups (years)</b>				
3.1	15-19 (%)	9.4	6.6	8.0
3.2	20-29 (%)	68.8	71.8	70.3
3.3	30-39 (%)	20.1	18.8	19.4
3.4	40-49 (%)	1.7	2.8	2.2
<b>Educational status of pregnant women</b>				
4.	Never attended school (%)	49.8	50.2	50.0
5.	Completed 10 or more years of schooling <sup>1</sup> (%)	25.1	22.3	23.7
<b>Self Help Groups (SHGs)</b>				
6.	Pregnant women who are members of SHGs (%)	27.6	17.7	22.6
7.	SHG members among the pregnant women who attended three or more Poshan Sakhi meetings in the 12 months preceding the survey <sup>2</sup> (%)	3.9	0	2.4
<b>Religion of the head of household</b>				
8.1	Hindu (%)	52.8	40.6	46.7
8.2	Muslim (%)	47.0	59.4	53.2
8.3	Others <sup>3</sup> (%)	0.2	0.0	0.1
<b>Caste/Tribe of the head of household</b>				
9.1	Scheduled Caste (SC) <sup>4</sup> (%)	16.5	10.0	13.2
9.2	Scheduled Tribe (ST) (%)	9.2	2.1	5.7
9.3	Mahadalit (%)	5.3	4.5	4.9
9.4	Other Backward Classes (OBCs) (%)	57.3	73.5	65.4
9.5	General (%)	11.8	9.8	10.8
10.	<b>Pregnant women who consumed alcohol and/or tobacco during pregnancy (%)</b>	2.1	2.6	2.4
<b>FOOD SECURITY</b>				
<b>Ration Card</b>				
11.	Pregnant women living in households having			
11.1	No ration card (%)	51.7	55.1	53.4
11.2	Above Poverty Line (APL) card (%)	12.8	13.7	13.2
11.3	Below Poverty Line (BPL) card <sup>5</sup> (%)	32.1	29.5	30.8
11.4	Antyodaya Anna Yojana (AAY) card <sup>6</sup> (%)	3.4	1.7	2.6

### Notes

\* Intervention Area – JEEViKA Cluster 2; Control Area – JEEViKA Cluster 3

1. Considered only those pregnant women who have ever attended school (n: Intervention Area - 235; Comparison Area – 233; Total - 468).

2. n: Intervention Area - 129; Comparison Area – 83; Total - 212.

3. Others include Christians, Buddhists, Sikhs and Jains.

4. The given percentage of Scheduled Caste (SC) does not include Mahadalit. The most socially and economically disadvantaged castes from the SC category have been designated as Mahadalits by the Bihar state government.

5. Below Poverty Line (BPL) cards are distributed to those households living below the poverty line, which includes households with a Monthly Per Capita Consumer Expenditure (MPCE) less than Rs. 971.28 (Bihar) (Report of the Expert Group to Review the Methodology for Measurement of Poverty, Government of India Planning Commission, June, 2014). These households are entitled to receive 10 kg wheat per card at Rs. 5.22 per kg, 15 kg rice per card at Rs. 6.78 per kg, and 1.49 kg sugar per family at Rs. 13.5 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.

6. Antyodaya Anna Yojana (AAY) cards are distributed to those households which comprise the poorest segments of the BPL population, including all households who are perceived to be at the risk of hunger. These households are entitled to receive 14 kg wheat per card at Rs. 2 per kg and 21 kg rice per card at Rs. 3 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.

<b>Key Indicators</b>	<b>Intervention Area</b>	<b>Comparison Area</b>	<b>Total</b>
<b>Public Distribution System (PDS) and Integrated Child Development Services (ICDS)</b>			
12. Pregnant women living in households with access to PDS in the month preceding the survey <sup>7</sup> (%)	58.4	71.4	64.7
13. Average quantity of rice received by households by type of ration card <sup>8</sup>			
13.1 APL card (kg)	11.4	10.0	10.6
13.2 BPL card (kg)	12.1	11.7	11.9
13.3 AAY card (kg)	13.0	17.3	15.4
14. Pregnant women receiving ICDS entitlement for supplementary food <sup>9</sup> (%)	16.2	26.1	21.2
15. <b>Pregnant women living in households with a kitchen garden<sup>10</sup> (%)</b>	18.8	14.3	16.6
<b>FOOD INSECURITY<sup>11</sup></b>			
16. Pregnant women who experienced food insecurity in the 12 months preceding the survey			
16.1 Worried about insufficient food (%)	67.1	70.5	68.8
16.2 Unable to eat healthy and nutritious food (%)	68.2	70.1	69.1
16.3 Had to eat limited variety of food (%)	66.2	68.8	67.5
16.4 Had to skip a meal (%)	50.0	51.3	50.6
16.5 Had to eat less meals (%)	45.7	42.3	44.0
16.6 Household ran out of food (%)	41.7	38.0	39.9
16.7 Had no food to eat at any time (%)	11.8	11.1	11.4
16.8 Had to go an entire day without food (%)	10.0	6.2	8.1
<b>Food Insecurity Experience Scale (FIES)</b>			
17.1 Pregnant women living in food secure households (%)	24.4	25.0	24.7
17.2 Pregnant women living in mildly food insecure households (%)	17.9	20.3	19.1
17.3 Pregnant women living in moderately food insecure households (%)	45.3	43.6	44.4
17.4 Pregnant women living in severely food insecure households (%)	12.4	11.1	11.8
<b>Coping mechanism to manage shortfall of food</b>			
18. Coping strategies of the households as reported by pregnant women			
18.1 Household head now spends extra hours at work to earn more money (overtime) (%)	25.0	29.1	27.0
18.2 Unlike earlier, now female(s) of household start working outside home (%)	16.9	9.8	13.4
18.3 Unlike earlier, now children of household start working outside home (%)	4.5	1.9	3.2
18.4 Migration of a family member to another city to earn money and send it back to the family (%)	43.8	47.6	45.7
18.5 Borrowing money to meet household expenses (%)	55.1	61.8	58.4
18.6 Resort to low-cost food grains/items available (%)	50.9	60.0	55.4
18.7 Borrowing grains to meet food requirements (%)	51.3	56.8	54.1
18.8 Sold household articles or possessions (%)	9.4	9.6	9.5

**Notes**

7. Includes only those households which possessed a ration card.
8. Under the National Food Security Act (NFSA), priority households are entitled to receive food-grains at subsidized rates each month; included only those households with a ration card and accessing PDS in the month preceding the survey.
9. Supplementary nutrition is provided to pregnant women and lactating mothers under ICDS.
10. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant lots, roadsides, edges of a field or even containers.
11. There are eight items indicating different levels of food insecurity severities. The first three indicate mild level of insecurity, items four to six indicate moderate food insecurity, and last two being items for severe food insecurity. FIES is then divided into four categories: 'food secure', if households have not reported affirmatively to any of the eight items; 'mildly insecure', if only any one of the first three are affirmatively reported; 'moderately insecure', if either of items four, five or six are affirmatively reported; 'severely insecure', if all items are affirmatively reported or either of items seven and eight are affirmatively reported.

Key Indicators		Intervention Area	Comparison Area	Total
<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>				
19.	Pregnant women (in 2 <sup>nd</sup> and 3 <sup>rd</sup> trimester) who received any Iron and Folic Acid (IFA) tablet <sup>12</sup> (%)	46.7	63.0	52.7
20.	Pregnant women (in 2 <sup>nd</sup> and 3 <sup>rd</sup> trimester) who consumed at least 25 IFA tablets <sup>13</sup> (%)	42.3	51.0	46.2
21.	Pregnant women (in 2 <sup>nd</sup> and 3 <sup>rd</sup> trimester) who received any calcium tablet <sup>12</sup> (%)	11.8	13.7	12.5
22.	Pregnant women (in 2 <sup>nd</sup> and 3 <sup>rd</sup> trimester) who consumed any tablet for deworming <sup>12</sup> (%)	5.9	3.1	4.9
23.	Pregnant women living in households using adequately iodised salt <sup>14</sup> (%)	79.9	66.5	73.2
<b>DIETARY DIVERSITY<sup>15</sup> (n)</b>		<b>420</b>	<b>458</b>	<b>878</b>
24.	Pregnant women's mean Dietary Diversity Score (DDS) <sup>16</sup> [Standard Deviation (SD)]	4.0 [1.4]	4.1 [1.4]	4.1 [1.4]
25.	In the 24 hours preceding the survey, food groups consumed by pregnant women			
25.1	Grains, white roots and tubers, and plantains (%)	100.0	96.1	97.9
25.2	Pulses (beans, peas and lentils) (%)	68.6	65.1	66.7
25.3	Nuts or seeds (%)	4.3	2.4	3.3
25.4	Dairy (%)	35.0	30.1	32.5
25.5	Meat, poultry and fish (%)	22.9	41.7	32.7
25.6	Egg (%)	7.4	9.8	8.7
25.7	Dark green leafy vegetables (%)	48.3	52.0	50.2
25.8	Other vitamin A-rich fruits and vegetables (%)	24.8	20.5	22.6
25.9	Other vegetables (%)	77.6	77.3	77.4
25.10	Other fruits (%)	10.0	15.7	13.0
26.	Pregnant women consuming food from specific food groups			
26.1	Animal-source food (meat, poultry, fish and egg) (%)	27.4	46.3	37.2
26.2	Pulses (beans, peas and lentils) and nuts or seeds (%)	69.0	65.9	67.4
26.3	Dark green leafy vegetables and other vitamin A-rich fruits and vegetables (%)	53.3	60.3	56.9
27.	Pregnant women by number of food groups consumed			
27.1	Only one food group (%)	1.4	1.3	1.4
27.2	Only two food groups (%)	12.4	10.9	11.6
27.3	Only three food groups (%)	24.3	22.9	23.6
27.4	Only four food groups (%)	30.2	29.7	30.0
27.5	Less than five food groups (%)	68.3	64.8	66.5
28.	Pregnant women with minimum dietary diversity score (5 or more out of 10) (%)	31.7	35.2	33.5

#### Notes

12. Includes those pregnant women who are in their 2<sup>nd</sup> and 3<sup>rd</sup> trimester of pregnancy (n: Intervention Area - 390; Comparison Area - 227; Total - 617).

13. Includes those pregnant women in their 2<sup>nd</sup> and 3<sup>rd</sup> trimester who received any IFA tablet (n: Intervention Area - 182; Comparison Area - 143; Total - 325).

14. 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm.

15. Excludes those pregnant women who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.

16. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was thus created (0 being the lowest value, 10 being the highest).

Key Indicators		Intervention Area	Comparison Area	Total
<b>ACCESS TO HEALTH SERVICES AND WATER, SANITATION AND HYGIENE (WASH)</b>				
<b>Registration in Antenatal Care (ANC) services</b>				
29.	Pregnant women who have registered their pregnancy (%)	60.9	70.3	65.6
30.	Pregnant women who have registered in the first trimester (%)	28.8	29.5	29.2
31.	Pregnant women who have received a Mother and Child Protection (MCP) card <sup>17</sup> (%)	74.7	78.4	76.7
<b>ANC services received during pregnancy</b>				
32.	Pregnant women who have sought ANC services (%)	70.1	78.4	74.3
33.	Pregnant women who have had ANC check-up in the first trimester (%)	36.3	33.5	34.9
34.	Pregnant women who have received Tetanus Toxoid (TT) injection (%)	83.1	91.7	87.4
35.	Pregnant women who have received counselling on birth preparedness by a frontline health worker <sup>18</sup> (%)	36.8	47.6	42.2
<b>Monitoring of nutritional status during pregnancy</b>				
36.	Pregnant women whose weight was monitored (%)	62.0	65.8	63.9
37.	Pregnant women whose height was recorded (%)	3.6	2.8	3.2
38.	Pregnant women whose Mid-Upper Arm Circumference (MUAC) was measured <sup>19</sup> (%)	4.9	4.3	4.6
<b>Village Health, Sanitation and Nutrition Day (VHSND)</b>				
39.	Pregnant women who attended VHSND meeting(s) in the six months preceding the survey <sup>20</sup> (%)	9.2	7.3	8.2
40.	Pregnant women who attended at least three VHSND meetings in the six months preceding the survey (%)	3.2	1.9	2.6

#### Notes

17. Mother and Child Protection (MCP) card is a joint initiative of ICDS and the National Rural Health Mission (NRHM). It is a comprehensive multipurpose card which provides information to the parents/guardians on various types of services delivered through ICDS and NRHM. Included only those pregnant women who have registered their current pregnancy (n: Intervention Area - 285; Comparison Area - 329; Total - 614).

18. Frontline health workers include Auxiliary Nurse Midwives (ANMs), Accredited Social Health Activist (ASHA) and Anganwadi Workers (AWW).

19. The measurement of MUAC is commonly used as a potential indicator of nutritional status.

20. The Village Health, Sanitation and Nutrition Day (VHSND), a component of ICDS, is held at Anganwadi Centres across Bihar once every month. On this day, adolescent girls, pregnant women and lactating mothers are provided with integrated health solutions as per their needs.

Key Indicators		Intervention Area	Comparison Area	Total
<b>Water, Sanitation and Hygiene</b>				
41.	Pregnant women living in households having access to drinking water from			
41.1	Public tap/Stand pipe (%)	18.4	21.2	19.8
41.2	Tube well or Borehole (%)	81.6	78.4	80.0
41.3	Others <sup>21</sup> (%)	0.0	0.4	0.2
42.	Pregnant women living in households with a			
42.1	Septic tank (%)	8.3	3.4	5.9
42.2	Pit latrine (%)	1.9	1.5	1.7
42.3	Biogas latrine (%)	5.6	0.0	2.8
42.4	Others (%)	4.7	3.9	3.8
43.	Pregnant women living in households in which members practice open defecation (%)	78.6	91.2	84.9
44.	Pregnant women living in households in which members use soap for hand-washing after defecation (%)	71.6	75.4	73.5
<b>KNOWLEDGE AND EVER USE OF FAMILY PLANNING METHODS AS REPORTED BY PREGNANT WOMEN</b>				
45.	Knowledge of family planning methods (%)	29.7	31.8	30.8
46.	Ever used any contraceptive (%)	2.1	1.1	1.6
47.	Adopted family planning methods to keep space between pregnancies <sup>22</sup> (%)	3.5	2.5	3.0
<b>ABILITY TO MAKE CHOICES AND DECISIONS</b>				
48.	Pregnant women taking decisions about their own health care (%)	59.4	55.3	57.4
49.	Pregnant women taking decisions about making major purchases for the household (%)	51.5	54.1	52.8
50.	Pregnant women taking decisions about making purchases for daily household needs (%)	61.3	61.5	61.4
51.	Pregnant women taking decisions about visits to family members or relatives (%)	40.0	34.8	37.4
<b>NUTRITIONAL STATUS<sup>23</sup> (n)</b>		<b>467</b>	<b>465</b>	<b>932</b>
52.	Pregnant women's mean MUAC (cm [SD])	23.1 [2.2]	22.6 [2.1]	22.8 [2.2]
52.1	Pregnant women with MUAC between 17-18.9 cm (%)	1.7	1.5	1.6
52.2	Pregnant women with MUAC between 19-20.9 cm (%)	11.6	19.6	15.6
52.3	Pregnant women with MUAC between 21-22.9 cm (%)	36.8	36.6	36.7
52.4	Pregnant women with MUAC 23 cm and above (%)	49.7	42.4	46.0
53.	Pregnant women experiencing severe wasting <sup>24</sup> (%)	13.5	21.1	17.3

#### Notes

21. Also includes those households which have no source of drinking water.

22. Includes only those pregnant women who have been pregnant on two or more occasions (n: Intervention Area – 344; Comparison Area – 366; Total - 710).

23. Includes only those pregnant women who had given their consent for taking their anthropometric measurements.

24. Includes pregnant women with MUAC < 21cm.





SWABHIMAAN PROGRAMME BASELINE (2016) -  
PURNEA DISTRICT, BIHAR

**MOTHERS**  
(of children under 2 years)  
(15-49 years)

## MOTHERS (of children under 2 years) (15-49 years)

Key Indicators		Intervention Area*	Comparison Area*	Total
<b>SOCIO-DEMOGRAPHIC INDICATORS</b>				
1.	Estimated sample of mothers <sup>1</sup> (n)	1424	1424	2848
2.	Mothers interviewed (n)	1400	1212	2612
<b>Distribution of mothers by age groups (years)</b>				
3.1	15-19 (%)	2.7	1.2	2.0
3.2	20-29 (%)	64.9	61.7	63.4
3.3	30-39 (%)	27.2	30.8	28.9
3.4	40-49 (%)	5.2	6.4	5.7
<b>Educational status of mothers</b>				
4.	Never attended school (%)	56.4	64.8	60.3
5.	Completed 10 or more years of schooling <sup>2</sup> (%)	24.9	25.3	25.0
<b>Self Help Groups (SHGs)</b>				
6.	Mothers who are members of SHGs (%)	35.4	24.1	30.2
7.	SHG members among the mothers who attended three or more Poshan Sakhi meetings in the 12 months preceding the survey <sup>3</sup> (%)	3.4	0.7	2.4
<b>Religion of the head of household</b>				
8.1	Hindu (%)	49.2	29.1	39.9
8.2	Muslim (%)	50.7	70.9	60.1
8.3	Others <sup>4</sup> (%)	0.1	0.0	0.0
<b>Caste/Tribe of the head of household</b>				
9.1	Scheduled Caste (SC) <sup>5</sup> (%)	16.4	7.7	12.4
9.2	Scheduled Tribe (ST) (%)	7.4	2.1	4.9
9.3	Mahadalit (%)	9.9	3.4	6.9
9.4	Other Backward Classes (OBCs) (%)	55.1	79.8	66.6
9.5	General (%)	11.1	7.1	9.3
10.	Mothers who consumed alcohol and/or tobacco during the last pregnancy (%)	3.6	3.3	3.5
<b>FOOD SECURITY</b>				
<b>Ration card</b>				
11.	Mothers living in households having			
11.1	No ration card (%)	47.9	46.3	47.2
11.2	Above Poverty Line (APL) card (%)	14.4	13.7	14.1
11.3	Below Poverty Line (BPL) card <sup>6</sup> (%)	35.1	38.0	36.4
11.4	Antyodaya Anna Yojana (AAY) card <sup>7</sup> (%)	2.6	2.1	2.3

### Notes

- \* Intervention Area – JEEViKA Cluster 2; Comparison Area – JEEViKA Cluster 3
- Mothers refer to mothers who have children under the age of two years.
  - Included only those mothers who have ever attended school (n: Intervention Area -611; Comparison Area -427; Total -1038).
  - n: Intervention Area - 496; Comparison Area – 292; Total - 788.
  - Others include Christians, Buddhists, Sikhs and Jains.
  - The given percentage of Scheduled Caste (SC) does not include Mahadalit. The most socially and economically disadvantaged castes from the SC category have been designated as Mahadalits by the Bihar state government.
  - Below Poverty Line (BPL) cards are distributed to those households living below the poverty line, which includes households with a Monthly Per Capita Consumer Expenditure (MPCE) less than Rs. 971.28 (Bihar) (Report of the Expert Group to Review the Methodology for Measurement of Poverty, Government of India Planning Commission, June, 2014). These households are entitled to receive 10 kg wheat per card at Rs. 5.22 per kg, 15 kg rice per card at Rs. 6.78 per kg, and 1.49 kg sugar per family at Rs. 13.5 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.
  - Antyodaya Anna Yojana (AAY) cards are distributed to those households which comprise the poorest segments of the BPL population, including all households who are perceived to be at the risk of hunger. These households are entitled to receive 14 kg wheat per card at Rs. 2 per kg and 21 kg rice per card at Rs. 3 per kg. Retrieved from: <http://www.pdsportal.nic.in/main.aspx>.

Key Indicators		Intervention Area	Comparison Area	Total
<b>Public Distribution System (PDS) and Integrated Child Development Services (ICDS)</b>				
12.	Mothers living in households with access to PDS in the month preceding the survey <sup>8</sup> (%)	64.2	72.5	68.1
13.	Average quantity of rice received by households by type of ration card <sup>9</sup>			
13.1	APL card (kg)	12.2	10.7	11.5
13.2	BPL card (kg)	12.2	11.7	11.9
13.3	AAY card (kg)	14.6	14.7	14.6
14.	Mothers receiving ICDS entitlement for supplementary food <sup>10</sup> (%)	17.3	27.8	22.2
15.	<b>Mothers living in households with a kitchen garden<sup>11</sup> (%)</b>	16.2	14.2	15.3
<b>FOOD INSECURITY<sup>12</sup></b>				
16.	Mothers who experienced food insecurity in the 12 months preceding the survey			
16.1	Worried about insufficient food (%)	74.1	74.2	74.2
16.2	Unable to eat healthy and nutritious food (%)	69.6	72.0	70.7
16.3	Had to eat limited variety of food (%)	72.4	70.3	71.4
16.4	Had to skip a meal (%)	57.4	55.5	56.5
16.5	Had to eat less meals (%)	50.5	47.8	49.2
16.6	Household ran out of food (%)	45.6	43.2	44.5
16.7	Had no food to eat at any time (%)	12.0	11.4	11.7
16.8	Had to go an entire day without food (%)	9.3	7.3	8.3
<b>Food Insecurity Experience Scale (FIES)</b>				
17.1	Mothers living in food secure households (%)	20.7	22.8	21.7
17.2	Mothers living in mildly food insecure households (%)	16.9	16.7	16.8
17.3	Mothers living in moderately food insecure households (%)	49.9	48.9	49.5
17.4	Mothers living in severely food insecure households (%)	12.4	11.6	12.1
<b>Coping mechanisms to manage shortfall of food</b>				
18.	Coping strategies of the households as reported by mothers			
18.1	Household head now spends extra hours at work to earn more money (overtime) (%)	29.1	28.4	28.8
18.2	Unlike earlier, now female(s) of household start working outside home (%)	22.0	22.0	22.0
18.3	Unlike earlier, now children of household start working outside home (%)	4.1	4.3	4.2
18.4	Migration of a family member to another city to earn money and send it back to the family (%)	45.9	49.8	47.7
18.5	Borrowing money to meet households expenses (%)	63.7	60.8	62.4
18.6	Resort to low-cost food grains/items available (%)	61.6	59.2	60.5
18.7	Borrowing grains to meet food requirements (%)	56.6	57.1	56.8
18.8	Sold household articles or possessions (%)	8.6	11.6	10.0

#### Notes

8. Includes only those households which possessed a ration card.
9. Under the National Food Security Act (NFSA), priority households are entitled to receive food-grains at subsidised rates each month; included only those households with a ration card and accessing PDS in the month preceding the survey.
10. Supplementary nutrition is provided to pregnant women and lactating mothers under ICDS.
11. Kitchen gardens are small plots of land cultivated by households. They provide the latter with easy access to fresh and nutritious vegetables and fruits, often on a daily basis. They include homestead land, vacant lots, roadsides, edges of a field or even containers.
12. There are eight items indicating different levels of food insecurity severities. The first three indicate mild level of insecurity, items four to six indicate moderate food insecurity, and last two being items for severe food insecurity. FIES is then divided into four categories: 'food secure', if households have not reported affirmatively to any of the eight items; 'mildly insecure', if only any one of the first three are affirmatively reported; 'moderately insecure', if either of items four, five or six are affirmatively reported; 'severely insecure', if all items are affirmatively reported or either of items seven and eight are affirmatively reported.

Key Indicators		Intervention Area	Comparison Area	Total
<b>MICRONUTRIENT SUPPLEMENTATION AND DEWORMING</b>				
19.	Mothers who received any Iron and Folic Acid (IFA) tablet during the last pregnancy (%)	49.9	44.1	47.2
20.	Mothers who consumed at least 100 IFA tablets during the last pregnancy <sup>13</sup> (%)	10.7	14.2	12.3
21.	Mothers who received any calcium tablet during the last pregnancy (%)	13.2	9.7	11.6
22.	Mothers who consumed any tablet for deworming during the last pregnancy (%)	7.9	5.2	6.7
23.	Mothers living in households using adequately iodised salt <sup>14</sup> (%)	82.3	71.0	77.1
<b>DIETARY DIVERSITY<sup>15</sup> (n)</b>		<b>1293</b>	<b>1189</b>	<b>2482</b>
24.	Mothers' mean Dietary Diversity Score (DDS) <sup>16</sup> [Standard Deviation (SD)]	3.6 [1.4]	3.9 [1.5]	3.8 [1.4]
25.	In the 24 hours preceding the survey, food groups consumed by mothers			
25.1	Grains, white roots and tubers, and plantains (%)	99.1	96.2	97.7
25.2	Pulses (beans, peas and lentils) (%)	62.8	59.1	61.0
25.3	Nuts or seeds (%)	3.9	1.6	2.8
25.4	Dairy (%)	29.5	22.1	25.9
25.5	Meat, poultry and fish (%)	30.0	38.9	34.3
25.6	Egg (%)	8.4	11.9	10.1
25.7	Dark green leafy vegetables (%)	30.2	47.4	38.4
25.8	Other vitamin A-rich fruits and vegetables (%)	18.6	23.0	20.7
25.9	Other vegetables (%)	72.9	80.4	76.4
25.10	Other fruits (%)	9.0	7.5	8.3
26.	Mothers consuming food from specific food groups			
26.1	Animal-source foods (meat, poultry, fish and egg) (%)	35.5	45.0	40.0
26.2	Pulses (beans, peas and lentils) and nuts or seeds (%)	63.7	59.5	61.6
26.3	Dark green leafy vegetables and other vitamin A-rich fruits and vegetables (%)	35.8	51.9	43.5
27.	Mothers by number of food groups consumed			
27.1	Only one food group (%)	3.4	3.4	3.4
27.2	Only two food groups (%)	16.6	13.5	15.1
27.3	Only three food groups (%)	30.2	23.7	27.11
27.4	Only four food groups (%)	25.7	28.3	27.0
27.5	Less than five food groups (%)	75.9	69.0	72.6
28.	Mothers with minimum dietary diversity score (5 or more out of 10) (%)	24.1	30.7	27.3

#### Notes

13. Among those mothers who received IFA tablets during the last pregnancy.

14. 'Adequately' iodized salt is used to refer to salt that has iodine content greater than 15 ppm.

15. Excludes those mothers who ate less or more than usual on the day prior to the date of the interview, as in the case of a fast or a celebration.

16. Dietary Diversity Score (DDS) is computed on the basis of consumption of food items, from the ten food groups, on the day prior to the date of the interview. Based on Food and Agricultural Organisation (FAO) 2016 methodology, 14 major food items were clubbed together to form 10 food groups. A ten-point DDS scale was created (0 being the lowest value, 10 being the highest).

Key Indicators		Intervention Area	Comparison Area	Total
<b>ACCESS TO HEALTH SERVICES AND WATER, SANITATION AND HYGIENE (WASH)</b>				
<b>Registration in Antenatal Care (ANC) services during last pregnancy</b>				
29.	Mothers who registered (%)	71.4	73.3	72.3
30.	Mothers who registered in the first trimester (%)	35.1	32.0	33.7
31.	Mothers who received a Mother and Child Protection (MCP) card <sup>17</sup> (%)	84.9	78.0	81.6
<b>Antenatal Care (ANC) during last pregnancy</b>				
32.	Mothers who sought ANC services (%)	78.2	68.7	73.8
33.	Mothers who had ANC check-up in the first trimester (%)	36.3	27.7	32.3
34.	Mothers who had at least four ANC check-ups (%)	16.4	14.5	15.5
35.	Mothers who received Tetanus Toxoid (TT) injection (%)	94.9	96.6	95.7
36.	Mothers who received counselling on birth preparedness by a frontline health worker <sup>18</sup> (%)	42.6	37.8	40.4
<b>Monitoring of nutritional status during last pregnancy</b>				
37.	Mothers whose weight was monitored (%)	64.9	54.5	60.0
38.	Mothers who were weighed at least four times (%)	6.2	3.5	4.9
39.	Mothers whose height was recorded (%)	3.6	0.9	2.3
40.	Mothers whose Mid-Upper Arm Circumference (MUAC) was measured <sup>19</sup> (%)	3.8	3.0	3.4
<b>Delivery and Post-Natal Care (PNC)</b>				
41.	Mothers who had an institutional delivery <sup>20</sup> (%)	78.9	76.2	77.7
42.	Mothers who received IFA tablets after delivery (%)	24.1	17.9	21.2
43.	Mothers who received calcium tablets after delivery (%)	18.8	13.6	16.4
44.	Mothers who received maternity entitlement payment (JSY) from government <sup>21</sup> (%)	58.8	59.5	59.1
<b>Village Health, Sanitation and Nutrition Day (VHSND)<sup>22</sup></b>				
45.	Mothers who attended VHSND meeting(s) in the six months preceding the survey	6.9	11.0	8.6
46.	Mothers who attended at least three VHSND meetings in the six months preceding the survey	2.7	3.4	3.0

#### Notes

17. Mother and Child Protection (MCP) card is a joint initiative of ICDS and the National Rural Health Mission (NRHM). It is a comprehensive multipurpose card which provides information to the parents/guardians on various types of services delivered through ICDS and NRHM. Included only those mothers who have registered their last pregnancy (n: Intervention Area -1000; Comparison Area -889; Total -1889).
18. Frontline health workers include Auxiliary Nurse Midwives (ANMs), Accredited Social Health Activist (ASHA) and Anganwadi Workers (AWW).
19. The measurement of MUAC is commonly used as a potential indicator of nutritional status.
20. Institutional delivery refers to last birth(s), which took place in a health facility/ institution.
21. Under the Janani Suraksha Yojana (JSY), pregnant women from BPL category, SCs and STs are entitled to receive cash assistance for giving birth in a government or accredited private health facility.
22. The Village Health, Sanitation and Nutrition Day (VHSND), a component of ICDS, is held at Anganwadi Centres across Bihar once every month. On this day, adolescent girls, pregnant women and lactating mothers are provided with integrated health solutions as per their needs.

Key Indicators	Intervention Area	Comparison Area	Total
<b>Water, Sanitation and Hygiene</b>			
47. Mothers living in households having access to drinking water from			
47.1 Public tap/Stand pipe (%)	15.5	20.5	17.8
47.2 Tube well or Borehole (%)	84.3	79.2	81.9
47.3 Others <sup>23</sup> (%)	0.2	0.3	0.3
48. Mothers living in households with a			
48.1 Septic tank (%)	7.5	3.9	5.8
48.2 Pit latrine (%)	3.0	1.9	2.5
48.3 Biogas latrine (%)	6.6	0.0	3.6
48.4 Others (%)	3.3	3.5	3.4
49. Mothers living in households in which members practice open defecation (%)	79.6	90.7	84.7
50. Mothers living in households in which members use soap for hand-washing after defecation (%)	72.0	69.3	70.8
<b>CURRENT USE OF FAMILY PLANNING METHODS AS REPORTED BY MOTHERS</b>			
51. Currently use any family planning method (%)	10.3	8.8	9.6
52. Currently use any modern contraceptive <sup>24</sup> (%)	9.2	7.7	8.5
<b>ABILITY TO MAKE CHOICES AND DECISIONS</b>			
53. Mothers taking decisions about their own health care (%)	59.3	66.7	62.7
54. Mothers taking decisions about making major purchases for the household (%)	55.2	62.5	58.6
55. Mothers taking decisions about making purchases for daily household needs (%)	65.2	71.2	68.0
56. Mothers taking decisions about visits to family members or relatives (%)	43.5	48.5	45.8
<b>NUTRITIONAL STATUS<sup>25</sup> (n)</b>			
57. Mothers' mean weight (kg [SD])	42.2 [8.9]	42.6 [7.5]	42.4 [8.3]
58. Mothers' mean height (cm [SD])	146.9 [22.2]	148.8 [16.0]	147.8 [19.6]
58.1 Mothers with height<145 cm (%)	18.1	12.9	15.7
59. Mothers' mean Body Mass Index (BMI) <sup>26</sup> [SD]	19.2 [2.6]	19.0 [2.4]	19.1 [2.5]
59.1 Mothers who are underweight (BMI<18.5) (%)	45.2	44.8	45.0
59.2 Mothers who are normal weight (BMI between 18.5-24.9) (%)	51.8	52.7	52.2
59.3 Mothers who are overweight (BMI between 25.0-29.9) (%)	2.6	2.4	2.5
59.4 Mothers who are obese (BMI >29.9) (%)	0.4	0.1	0.2
60. Mothers' mean MUAC (cm [SD])	22.4 [2.5]	22.1 [2.3]	22.3 [2.4]
60.1 Mothers with MUAC between 17-18.9 cm (%)	2.8	2.8	2.8
60.2 Mothers with MUAC between 19-20.9 cm (%)	17.5	21.8	19.5
60.3 Mothers with MUAC between 21-22.9 cm (%)	36.9	37.6	37.3
60.4 Mothers with MUAC 23 cm and above (%)	42.8	37.9	40.5
61. Mothers experiencing both severe stunting and wasting <sup>27</sup> (%)	11.0	9.1	10.1

#### Notes

23. Also includes households which have no source of drinking water.

24. Modern contraceptives include female and male sterilisations, Intra-Uterine Devices (IUDs), injectables, pills, condoms and diaphragms.

25. Includes only those mothers who had given their consent for taking their anthropometric measurements. Women with a birth in the preceding two months are excluded.

26. The World Health Organisation (2004) defines Body Mass Index (BMI) as a simple index of weight for height and is used to categorise adults as either underweight, normal, weight, overweight or obese. It is calculated as weight (kilograms) divided by the square of height (metres).

27. Includes those mothers whose height<145 cm and MUAC<23cm.







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